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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Date Submitted: February 10, 2005

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Complete if Known

Application Number	10/803,491
Filing Date	3/19/2004
First Named Inventor	Flores-Lira et al.
Group Art Unit	1754
Examiner Name	Ardith E. Hertzog
Attorney Docket Number	054821-9007

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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	A1	2004/0234852	A1	Klein et al.	11-25-2004	
	A2	2004/0121233	A1	Klein et al.	06-24-2004	
	A3	6,454,977	B1	Kwok et al.	09-24-2002	
	A4	6,442,811	B1	Dawood et al.	09-03-2002	
	A5	6,274,274	B1	Schaeffer et al.	08-14-2001	
	A6	6,168,661	B1	Dinkelman	01-02-2001	
	A7	6,014,798		Nitsche et al.	01-18-2000	
	A8	5,998,062		Olson	12-07-1999	
	A9	5,958,621		Kao	09-28-1999	
	A10	5,871,862		Olson	02-16-1999	
	A11	5,660,600		Vyas	08-26-1997	
	A12	5,447,809		Hafner et al.	09-05-1995	
	A13	5,443,601		Doeff et al.	08-22-1995	
	A14	5,382,482		Suga et al.	01-17-1995	
	A15	5,368,961		Juergens	11-29-1994	
	A16	5,302,476		Kao et al.	04-12-1994	
	A17	5,290,359		Coonen et al.	03-01-1994	
	A18	5,273,554		Vyas	12-28-1993	
	A19	5,252,105		Witherspoon et al.	10-12-1993	
	A20	5,198,313		Juergens	03-30-1993	
	A21	5,120,620		Nelson et al.	06-09-1992	
	A22	5,096,611		Matthew et al.	03-17-1992	
	A23	5,092,404		Falsk et al.	03-03-1992	
	A24	5,091,273		Hug et al.	02-25-1992	
	A25	5,047,300		Juergens	09-10-1991	
	A26	5,045,086		Juergens	09-03-1991	
	A27	5,021,166		Torpey	06-04-1991	
	A28	5,002,700		Otagawa et al.	03-26-1991	
	A29	4,902,532		Seo	02-20-1990	
	A30	4,900,643		Eskra et al.	02-13-1990	
	A31	4,867,886		Botkins, Jr.	09-19-1989	
	A32	4,780,379		Puester	10-25-1988	
	A33	4,758,372		Eirich et al.	07-19-1988	
	A34	4,707,272		Kistler	11-17-1987	
	A35	4,705,602		Dahl	11-10-1987	
	A36	4,697,511		Davis et al.	10-06-1987	
	A37	4,656,706		Mahato et al.	04-14-1987	
	A38	4,648,177		Uba et al.	03-10-1987	
	A39	4,637,966		Uba et al.	01-20-1987	
	A40	4,618,478		McKinney	10-21-1986	
	A41	4,606,982		Nelson et al.	08-19-1986	
	A42	4,551,401		Wilson	11-05-1985	

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4

U.S. PATENT DOCUMENTS

		U.S. Patent Document		
A43	4,547,443		Rowlette et al.	10-15-1985
A44	4,501,669		Hakansson et al.	02-26-1985
A45	4,475,453		Davis	10-09-1984
A46	4,422,917		Hayfield	12-27-1983
A47	4,421,832		Uba	12-20-1983
A48	4,415,410		Reich	11-15-1983
A49	4,414,295		Uba	11-08-1983
A50	4,407,911		Hooke	10-04-1983
A51	4,388,210		Parker	06-14-1983
A52	4,387,142		Lindholm et al.	06-07-1983
A53	4,383,011		McClelland et al.	05-10-1983
A54	4,346,151		Uba et al.	08-24-1982
A55	4,346,022		Wolcott et al.	08-24-1982
A56	4,326,017		Will	04-20-1982
A57	4,324,768		Sugahara et al.	04-13-1982
A58	4,323,470		Mahato et al.	04-06-1982
A59	4,315,829		Duddy et al.	02-16-1982
A60	4,232,100		Magnusson et al.	11-04-1980
A61	4,212,179		Juergens	07-15-1980
A62	4,143,218		Adams et al.	03-06-1979
A63	4,140,589		Hradcovsky et al.	02-20-1979
A64	4,110,519		Nilsson	08-29-1978
A65	4,064,725		Hug et al.	12-27-1977
A66	4,050,482		Ching et al.	09-27-1977
A67	4,024,055		Blann	05-17-1977
A68	4,020,882		Foulkes	05-03-1977
A69	4,019,431		Bastgen	04-26-1977
A70	3,974,026		Emson et al.	08-10-1976
A71	3,951,688		Pankow et al.	04-20-1976
A72	3,942,433		Wohlfarter	03-09-1976
A73	3,899,349		Yarnell	08-12-1975
A74	3,894,886		Pankow et al.	07-15-1975
A75	3,887,693		Escribano Nevado et al.	06-03-1975
A76	3,770,507		Weissman et al.	11-06-1973
A77	3,765,943		Biagetti	10-16-1973
A78	3,747,560		Roberts et al.	07-24-1973
A79	3,734,694		McCoy	05-22-1973
A80	3,702,265		Snyder et al.	11-07-1972
A81	3,480,478		Sohn et al.	11-25-1969
A82	3,449,166		Jache	06-10-1969
A83	3,419,431		Michaels	12-31-1968
A84	3,398,024		Barnes et al.	08-20-1968
A85	3,384,458		McCarthy et al.	05-21-1968
A86	3,252,764		Bruno, Jr.	05-24-1966
A87	3,194,685		Malloy	07-13-1965

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Examiner Name	Ardith E. Hertzog
Attorney Docket Number	054821-9007

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U.S. PATENT DOCUMENTS

U.S. Patent Document					
A88	3,186,871		Donohue	06-01-1965	
A89	3,169,890		Voss et al.	02-16-1965	
A90	3,104,946		Veal	09-24-1963	
A91	3,001,013		Stanton	09-19-1961	
A92	2,717,903		Ruth	09-13-1955	
A93	2,182,479		Johnstone	12-05-1939	
A94	2,165,944		Scott	07-11-1939	
A95	2,159,226		Reid	05-23-1939	
A96	1,572,586		Weir	02-09-1926	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	A97	WO	02/069418	A1	Nitsche et al.	09-06-2002		
	A98	EP	0707718		Preuss	04-24-1996		
	A99	JP	63-269456		Morimoto	11-07-1988		
	A100	ES	8801559		Rheinmetall GMBH (DE)	04-01-1988		
	A101	EP	196507		Kistler	10-08-1986		
	A102	JP	59-101773		Tamaru	06-12-1984		
	A103	JP	58-147961		Satou	09-02-1983		
	A104	WO	8200258	A1	Koczka et al.	02-04-1982		
	A105	GB	1014694		Barnes et al.	12-31-1965		
	A106	FR	723018		Thomson	04-01-1932		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A107	GRUGEON-DEWAELE, S., LARUELLE, S., JOLIVEAU-VALLAT, F., TORCHEUX, DELAHAYE-VIDAL, A., "Synthesis and Electrochemical Performances of Tribasic and Tetrabasic Lead Sulfates Prepared by Reactive Grinding", Journal of Power Sources 72, 1998, pages 126-131.	
	A108	VILHUNEN, J.K., HORNYTZKY, S. and TUMMAVUORI, J. "The Influence of the Raw Material and Production Method on the Morphology, Microstructure, Chemical and Phase Composition of Tetrabasic Lead Sulfate Pastes", Journal of Power Sources, Volume 39, 1992, pages 59-65.	
	A109	PAVLOV, D. and KAPKOV, N., "Lead-Acid Battery Pastes Containing 4PbO - PbSO ₄ and Pb ₃ O ₄ ", J. Electrochemical Society, Volume 137, No. 1, January 1990, pages 16-28.	

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Examiner Signature

Ardith E. Hertzog

Date Considered

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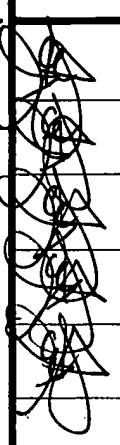
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	A110	YARNELL, C.F. and WEEKS, M.C., "The Oxidation of Tetrabasic Lead Sulfate to Lead Dioxide in the Positive Plate of the Lead-Acid Battery", Journal of the Electrochemical Society, January 1979, Vol. 126, No. 1, pp. 7-11.		
	A111	MCCABE, W.L. and SMITH, J.C., "Unit Operations of Chemical Engineering" third edition, McGraw-Hill Book Company, 1976, 5 pages.		
	A112	PAVLOV, D. and PAPAJOV, G., "Dependence of the Properties of the Lead-Acid Battery Positive Plate Paste on the Processes Occurring During Its Production" Journal of Applied Electrochemistry, Volume 6, No. 4, July 1976, pages 339-345.		
	A113	BIAGETTI, R.V. and WEEKS, M.C., "Tetrabasic Lead Sulfate as a Paste Material for Positive Plates", Bell System Technical Journal, September 1970, Vol. 49, No. 7, pp. 1305-1319.		
	A114	BURBANK, J., "Anodic Oxidation of the Basic Sulfates of Lead" Journal of the Electrochemical Society, Volume 113, No. 1, January 1966, pages 10-14.		

001.1743634.1

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